



## **International Environmental Ethics and Governance amid the Rising of BASIC Countries**

**Zhu, Xianli**

*Publication date:*  
2010

*Document Version*  
Publisher's PDF, also known as Version of record

[Link back to DTU Orbit](#)

*Citation (APA):*  
Zhu, X. (Author). (2010). International Environmental Ethics and Governance amid the Rising of BASIC Countries. Sound/Visual production (digital)

---

### **General rights**

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

# **International Environmental Ethics and Governance amid the Rising of BASIC Countries**

**Xianli Zhu**

**10 Dec 2010, Monaco**

# Outline

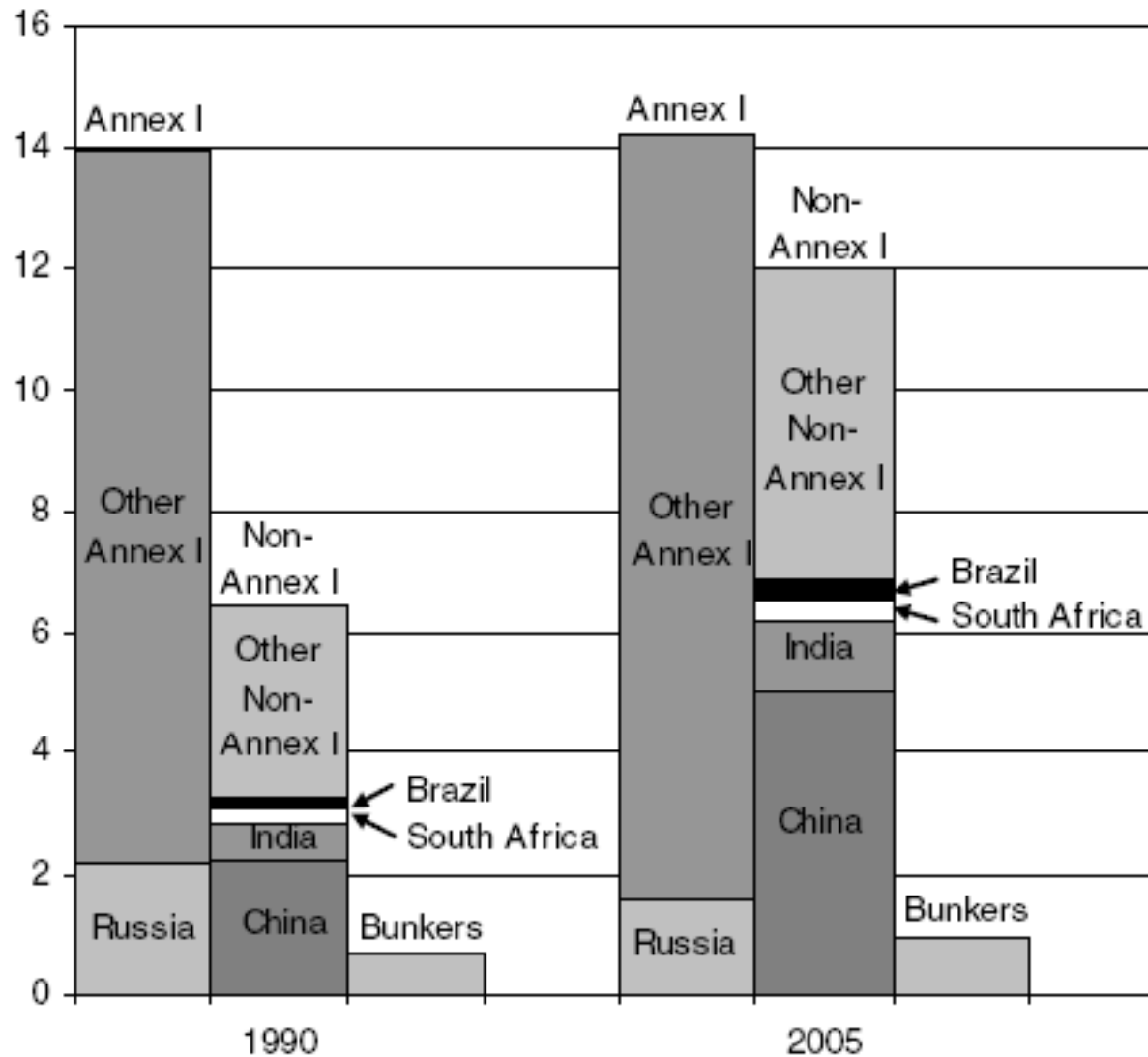
- Rising of BASIC countries and their GHG emissions
- Drivers behind the emissions increase
- Is there something new from the global perspective?
- What the environmental implications?

# Rising of the BASIC Countries

- Brazil, China, India, and South Africa, also known as the BASIC countries, represent the fast growing members of the developing world.
- Copenhagen Accord was brokered by the BASIC countries and the United States
- Together, these four big developing countries have 40% of the world population, more than twice of the total of OECD countries.

# The growing importance of BASIC countries in global GHG emissions

Gigatonnes of CO<sub>2</sub>



Source: IEA, 2007

# Influences of the rising of BASIC countries

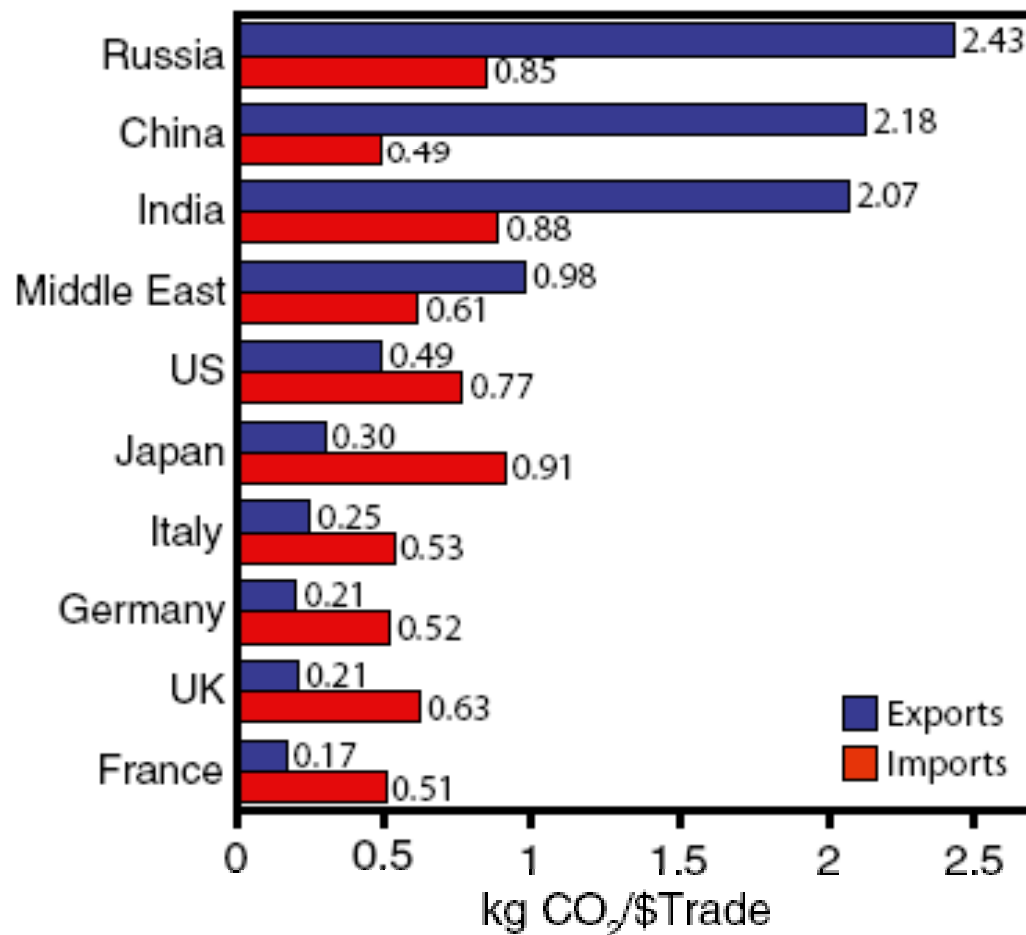
- Their rapid development in the past three decades has helped lift hundreds of millions of people above poverty, changing the picture of 20% rich living in developed countries, 80% poor living in developing countries
- Changing from big receivers of development aid to big contributors
- Both important markets and major manufacturing centres
- Change the landscape of world economy and politics and change the landscape of international environmental ethics and governance more complicated.

# Rapid economic growth in China and Domestic drivers

Rapid economic growth: Between 1979 and 2007, the Chinese economy grew at an average annual rate of 9.8%

- **Mass consumption stage:** rapid increases of consumer goods, appliances, buildings, cars...
- **City expansion:** large scale construction of roads, railways, and other infrastructures and housing
- **Urbanisation:** income gap between the urban and rural residents has widened from 3.3:1 in 2009. each year over urban population increase by over 10 million

## Mean CO2 intensity of imports and exports to and from the largest net importing/exporting countries



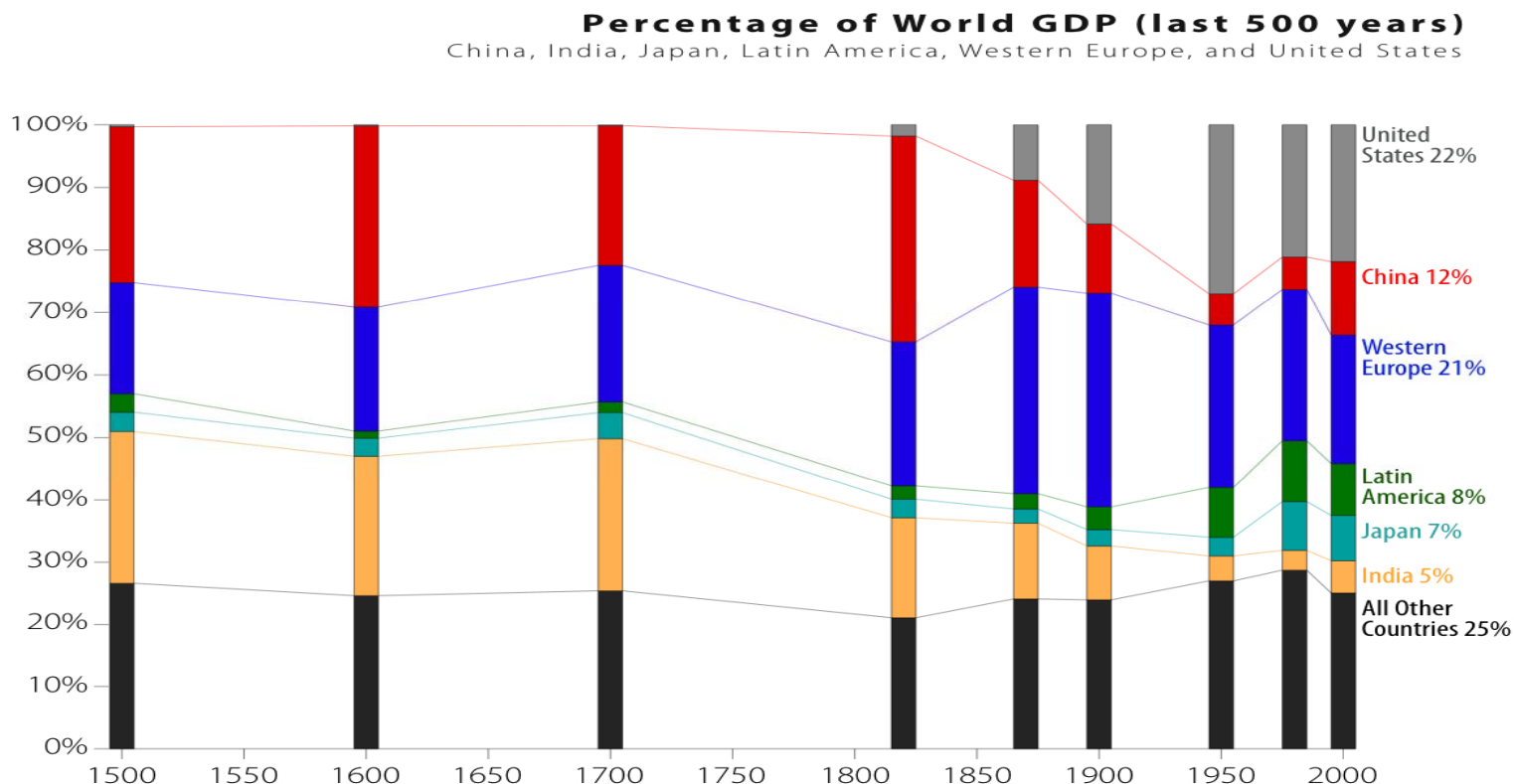
Moreover, a significant part of their emissions and natural resource over-extraction is for consumption in the developed world



# China and India in the World Economics

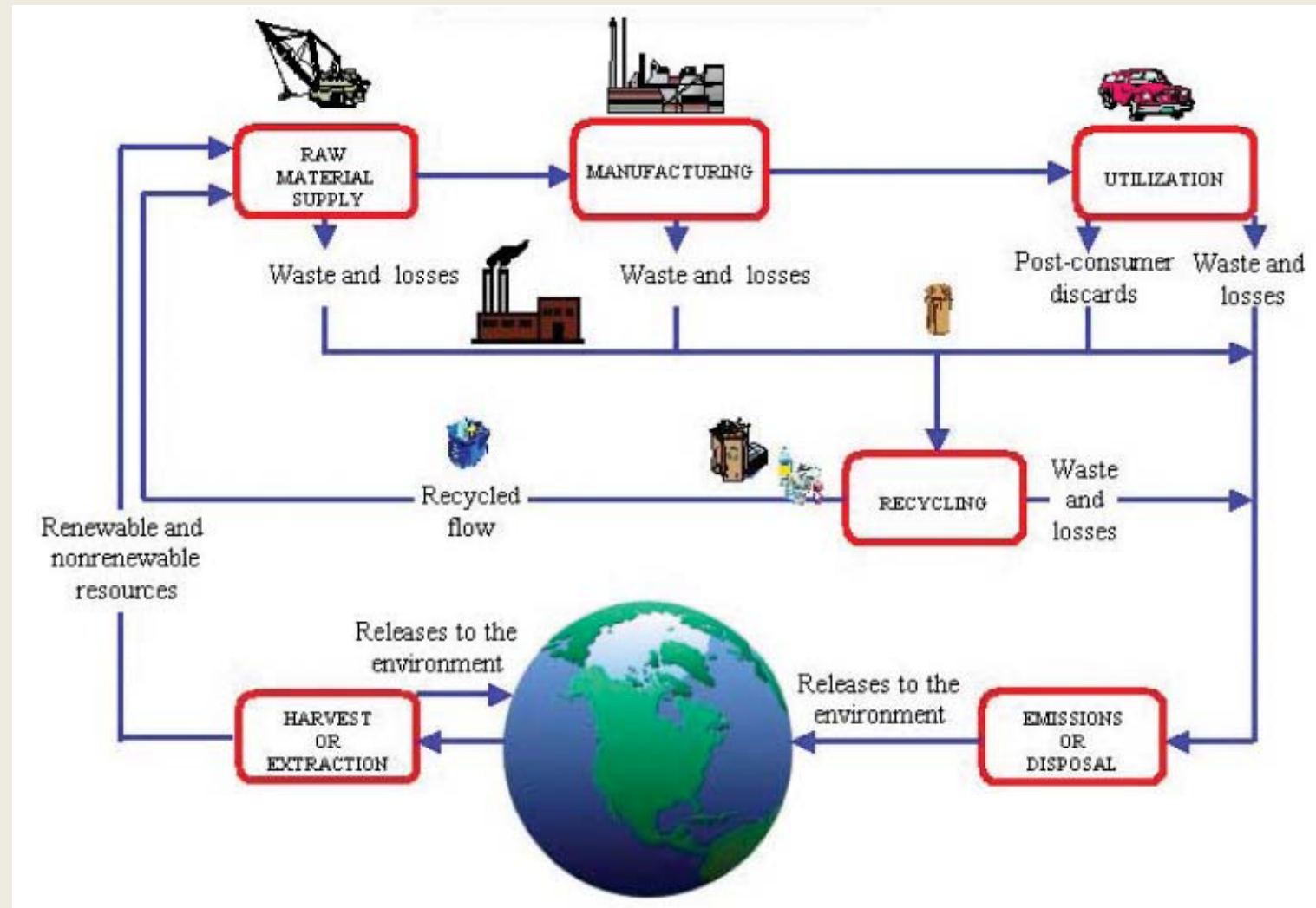
**Visualizing Economics**  
Making the Invisible Hand Visible

Visit [www.visualizingeconomics.com](http://www.visualizingeconomics.com)  
to view more examples

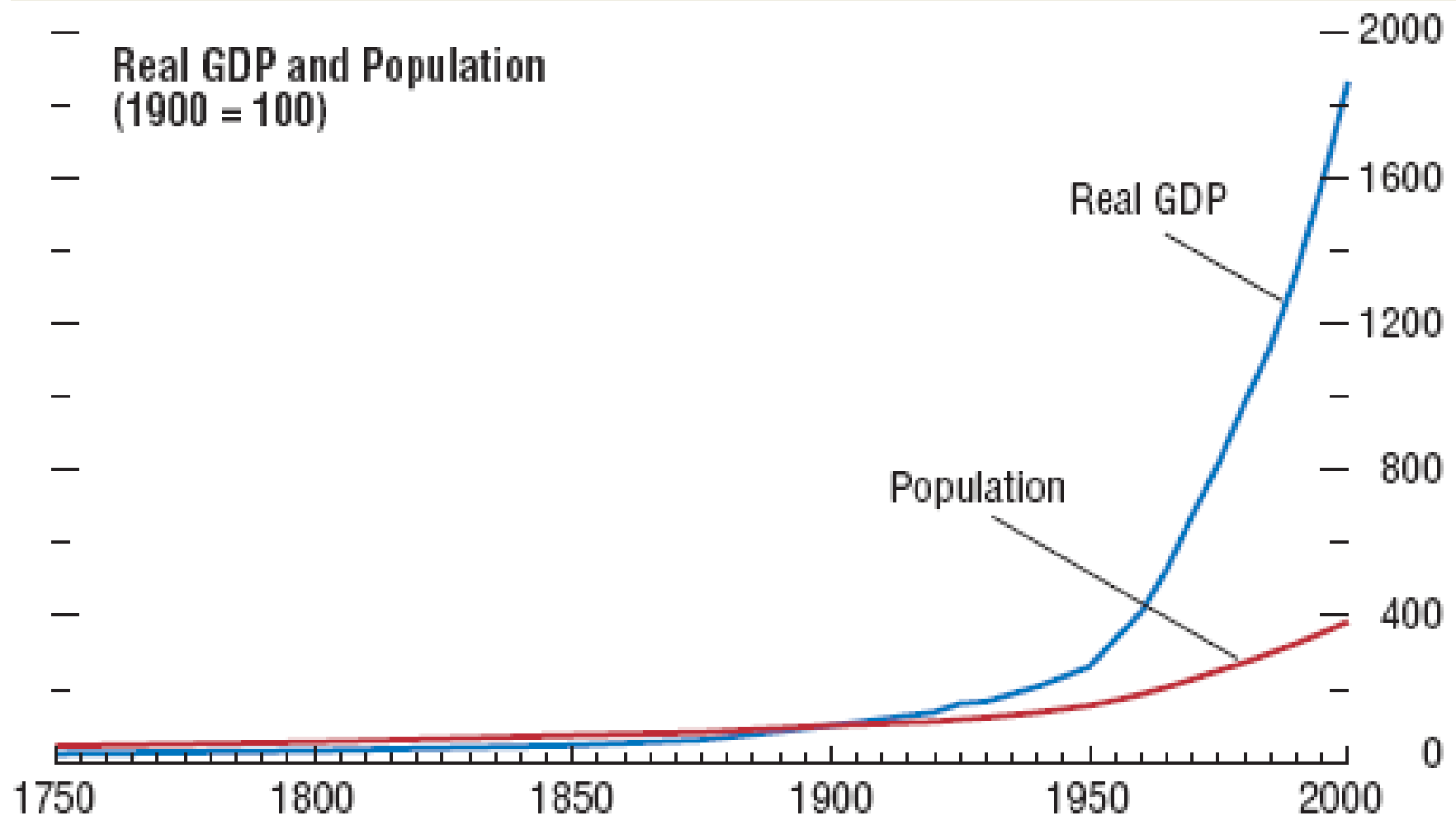


- Catching-up is a energy and other resource-intensive process, request large amount of physical asset accumulation, combining industrialisation and urbanisation
- China is in the process, India, whose economic take-off starts 10 years later than China, is likely to follow

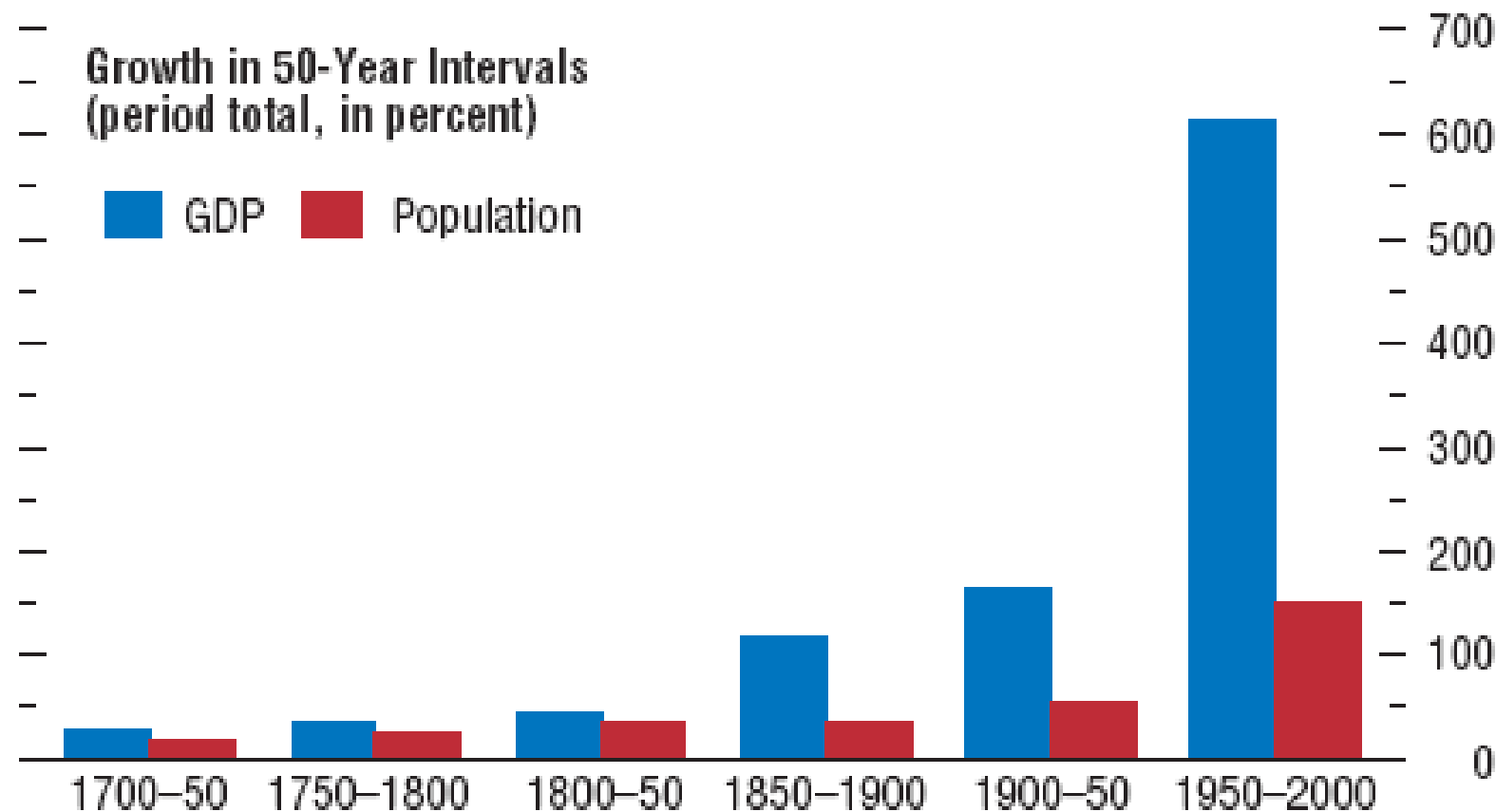
# Material flow circle



# World Real GDP and Population Growth

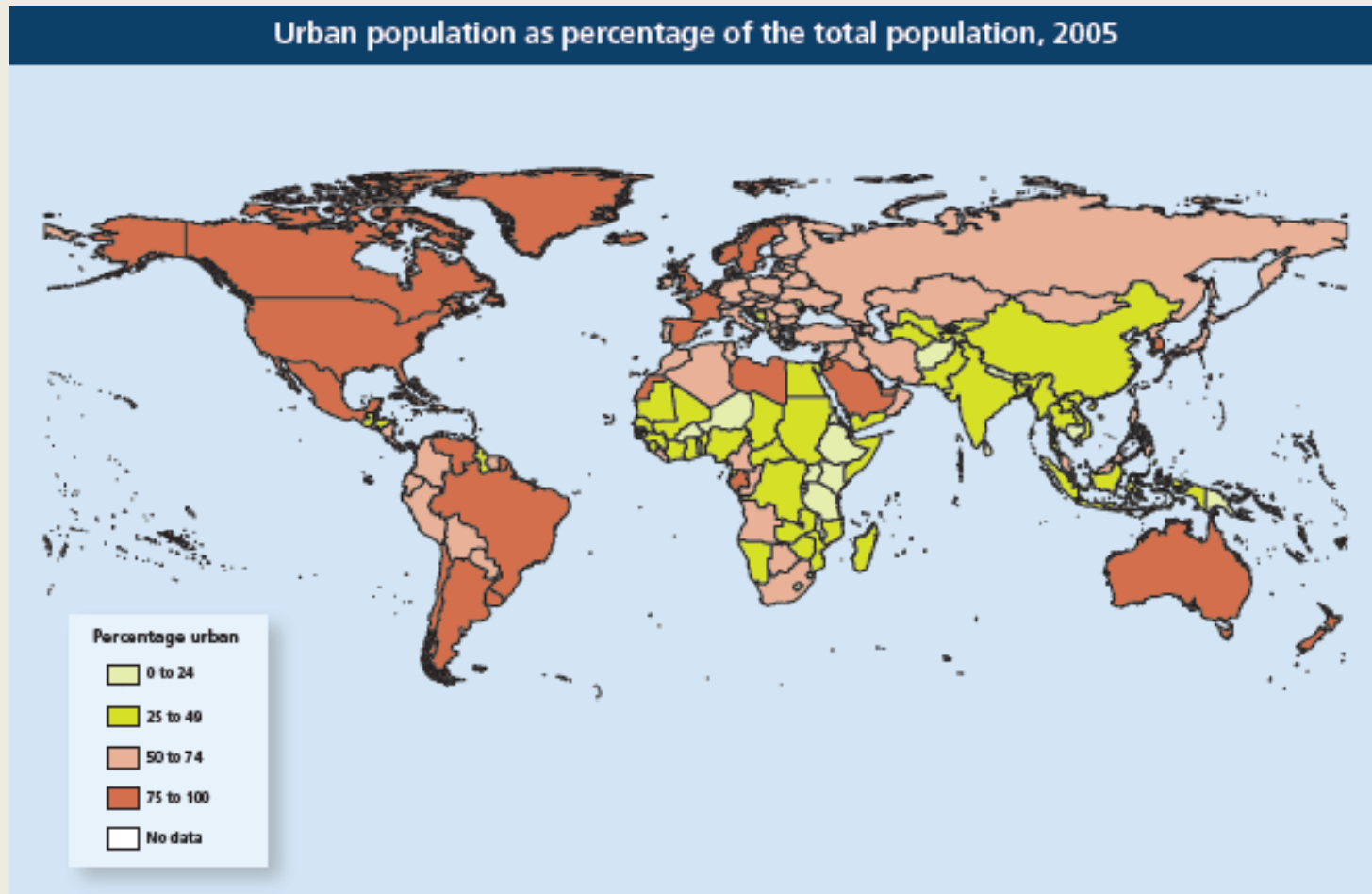


# World Economic and Population Growth rate

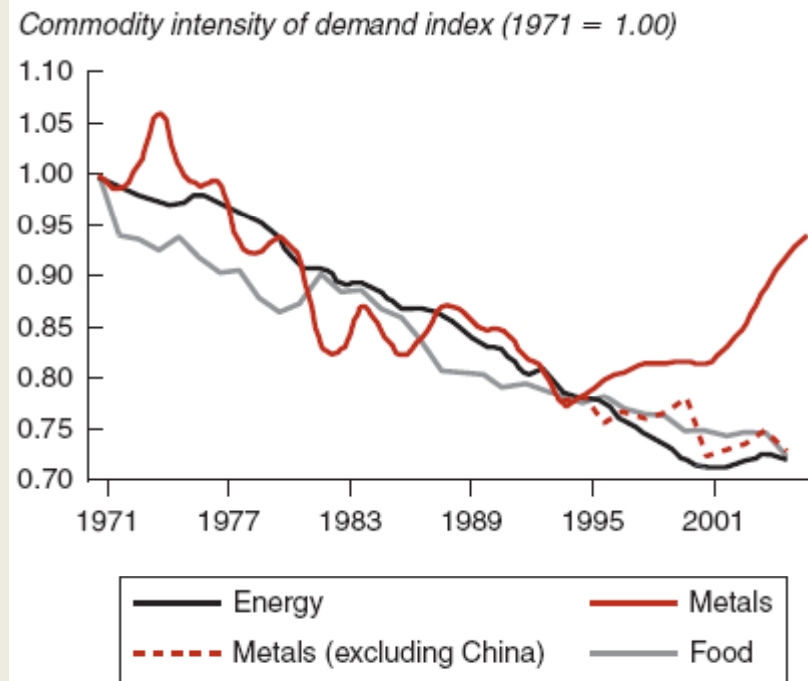


Source: Bradford J. DeLong, "Estimating World GDP, One Million B.C.–Present." Available via the internet at: <http://econ161.berkeley.edu>.

# Urbanisation is part of the modernity process



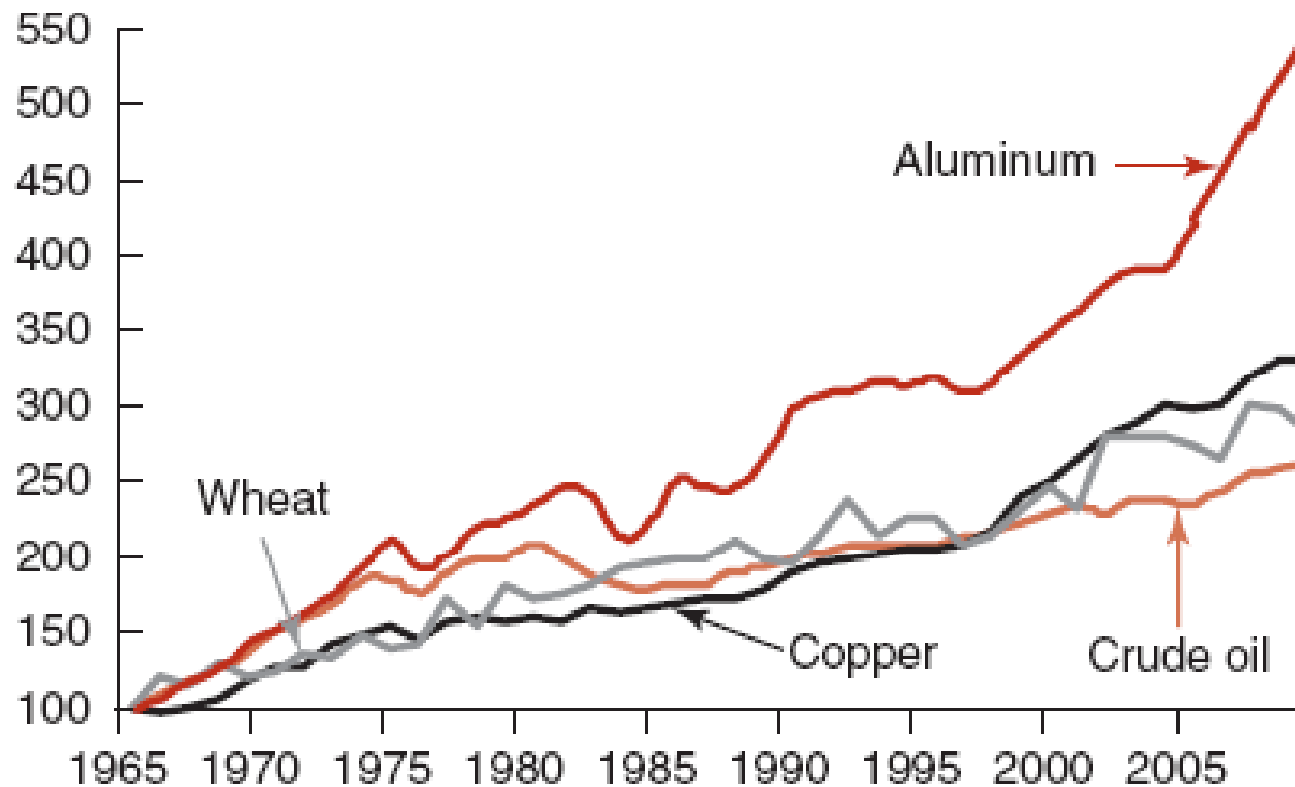
# Technological progress has reduced the quantity of commodities used per unit of GDP



*Source:* World Bank calculations, using data from the World Bureau of Metal Statistics, the IEA, and the FAO.

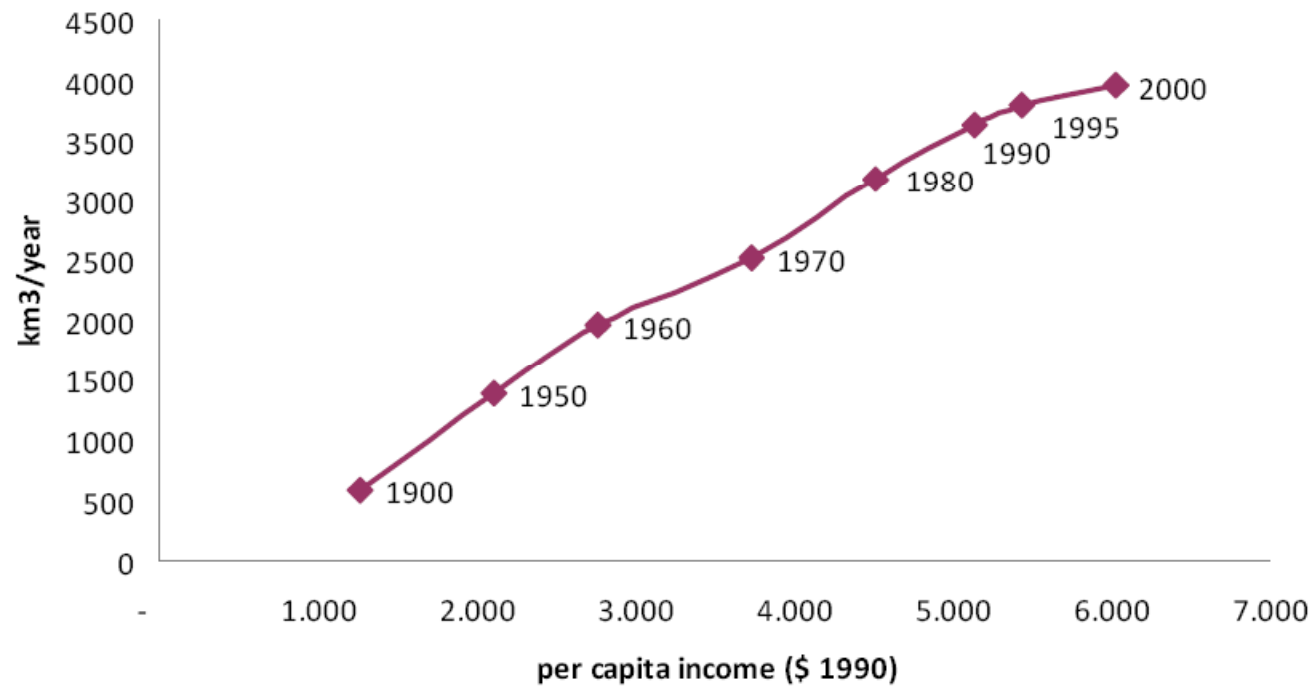
# Output of virtually all commodities has increased since 1965

*Output volumes, 1965–2007, index (1965 = 100)*



*Source: World Bank.*

# Worldwide water withdrawal, 1900-2000

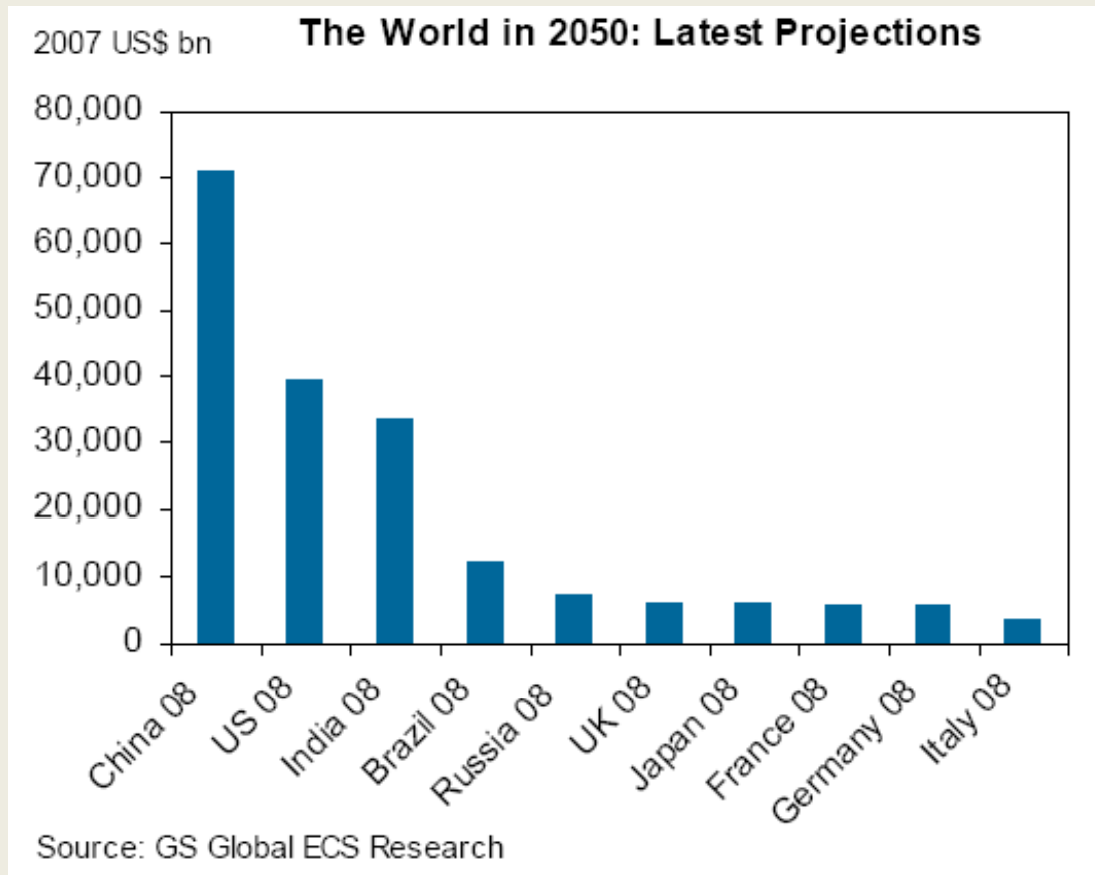


Over extraction of underground water is increasing, leading to underground water level decreasing and land subsidence, and influencing ecological systems



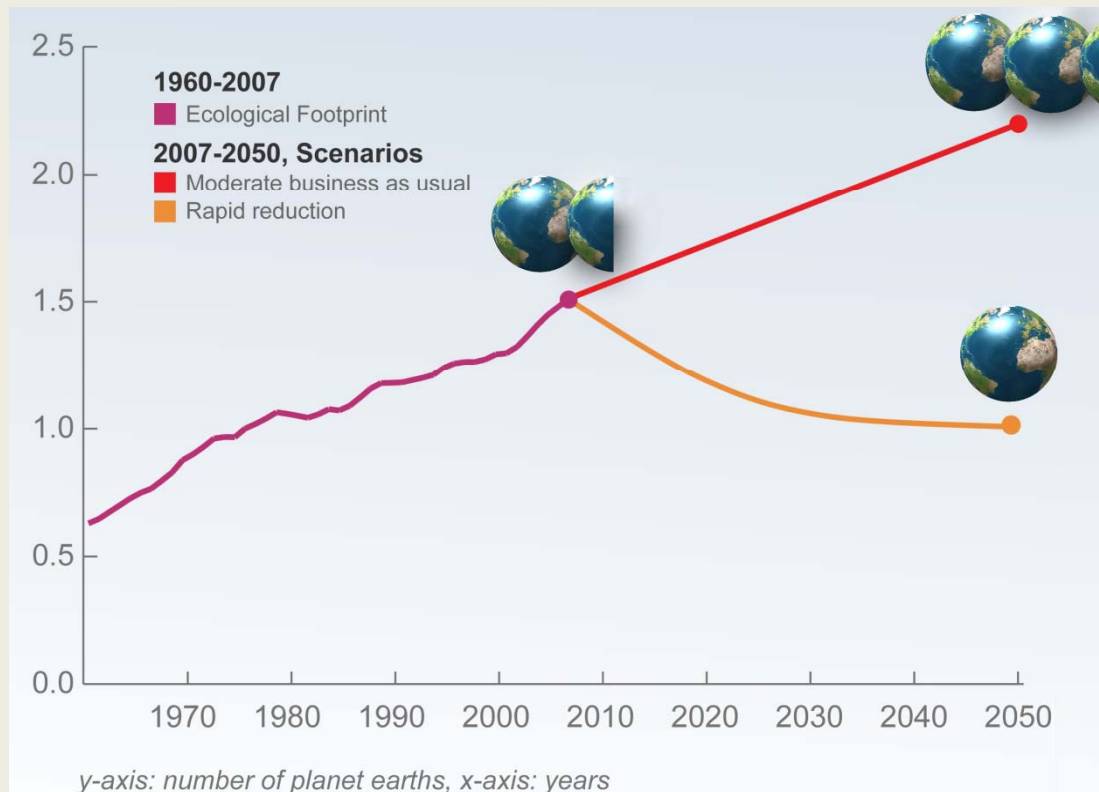


## 2050 economic projection



- Rising of BRIC countries
- Other developing countries, including big ones, may join the catch-up queue

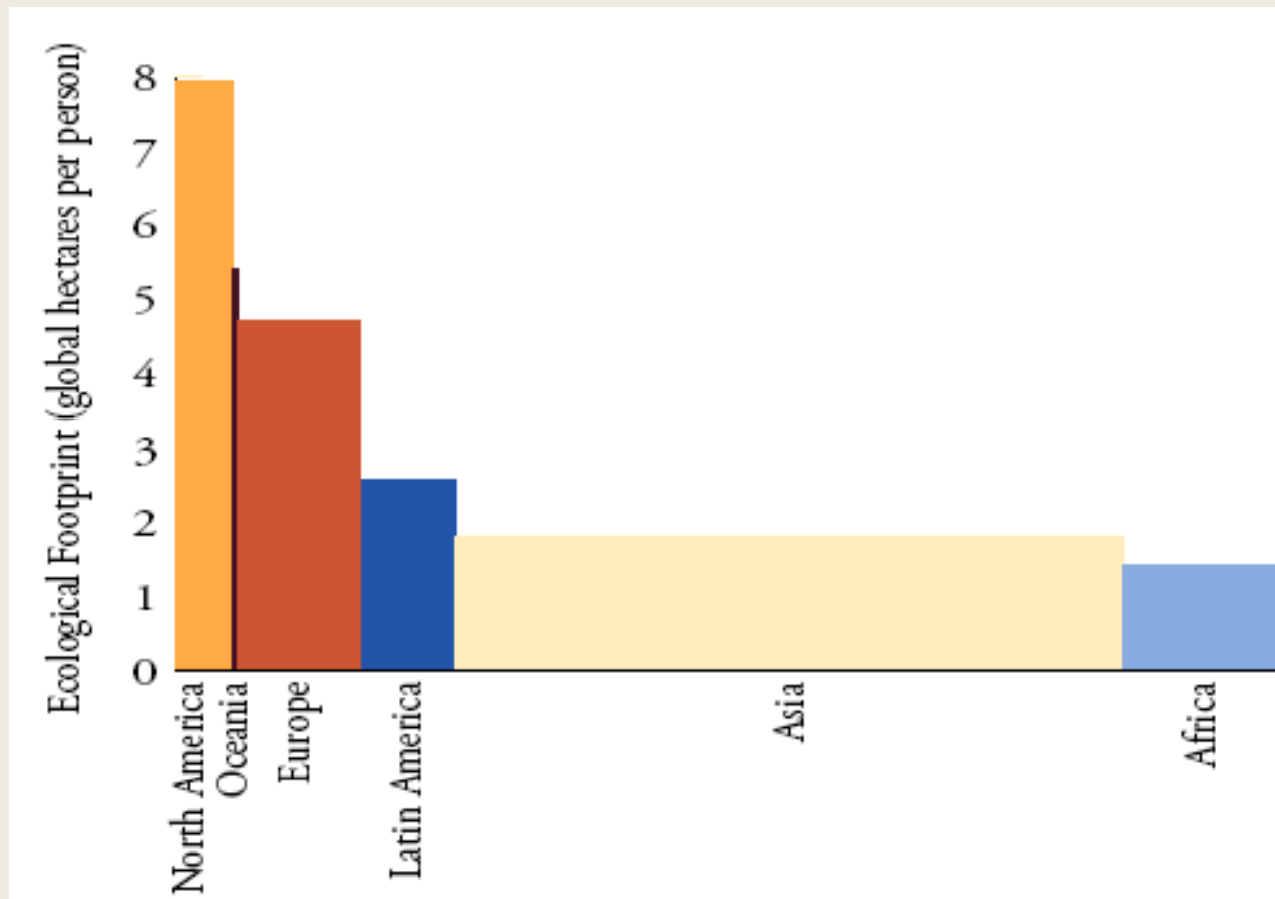
# World ecological footprint



- The Ecological Footprint has emerged as the world's premier measure of humanity's demand on nature. It measures how much land and water area a human population requires to produce the resource it consumes and to absorb its wastes, using prevailing technology

# Whose footprint, on whose land?

Because of international trade and poverty, poor countries are often at the frontier of environmental degradation as supplier of primary goods, and lack of means to control them



Source: WWF, 2010

# Conclusions

- Developing countries are following the same modernity pathways
- Modernity is taking place at an unprecedented speed in absolute terms
- Overtime, world raw material supply centres, manufacturing centres, and economic growth centres change
- Wherever they are, the resource input and the waste disposal increase as economies develop, and environmental pressure increases
- Climate change and biodiversity loss is just part of the picture of resource depletion and degradation: need find more sustainable growth patterns
- The urgency: long use life of buildings, power plants, cars, and other infrastructure (lock-in effect)



